

AMENDMENT NO. 1 MARCH 2015
TO
IS 6609 (PART 2/SECTION 2) : 1974 METHODS OF TEST
FOR COMMERCIAL BLASTING EXPLOSIVES AND
ACCESSORIES

PART 2 EXPLOSIVES

Section 2 Explosives, Permitted

(Page 4, *clause 2.1, para 2*) — Substitute the existing classification with the following:

‘a) *Type P(o)* — Permitted (ordinary) or P₁ explosive; for use in first degree gassy seams with instantaneous permitted detonators;

b) *Type P(eqs)* — Permitted equivalent to sheathed) or P₃ explosive; they are primarily designed for use in second and third degree gassy seams but also can be used for first degree gassy seams with instantaneous permitted detonators;

c) *Type P(r)* — Permitted (for ripping) or P₄ explosive; they are primarily designed for use in ripping; and

d) *Type P(s)* — Permitted (for solid blasting) or P₅ explosive; they are primarily designed for delay firing in solid coal. They can also be used for instantaneous blasting with under-cuts, over-cuts, mid-cuts and side-cuts in all categories of seams.’

(Page 7, *clause 3.1.3.1, sentence 4*) — Substitute the following with the existing:

‘After firing 1 500 shots, inner liner of the cannon shall be considered for replacement. Care shall be taken to ensure that the cannon has not become so enlarged as to cause any appreciable reduction of the severity of the test.’

(Page 8, *clause 3.2.1.1, sentence 1*) — Substitute the following with the following:

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‘3.2.1.1 Unless otherwise required, the cartridges for all the gallery tests on all types and groups of explosives shall be of 37 ± 0.5 mm or 32 ± 0.5 mm and cartridges must be made by intended method of manufacture and at the intended site of manufacture so that it truly represent the commercial batches to be manufactured for use in underground coal mines.

[Page 11, clause **3.3.1.2** (c), sentences 3 and 4] — Delete.

[Page 13, clause **3.3.1.3** (b)] — Substitute the following with the existing:

‘b) In case of Type P (o) explosives, suspend two paper bags each containing 550 g of coal dust and a strength No. 8 copper tube low tension instantaneous electric detonator from the top of the gallery at a distance of 75 cm and 210 cm from the blank end of the gallery. Before beginning the test, scatter 2.3 kg of coal dust along the first 5.5 m length of the gallery. Connect the detonators in the paper bag with the strength No. 6 half second delay detonator in the explosive charge in series with each other and connect the free with the- first two terminals inside the gallery.’

(Page 14, clause **3.3.5.3**) — Insert the following new clause:

‘3.3.6 *Criteria for Passing the Test*

Criteria for passing the test specified for P(o), P(eqs) and P(s) groups of permitted explosives are summarized as follows. Moreover, during all the trials for the gallery testing, cartridges should detonate satisfactorily.

<i>Permitted Groups</i>	<i>P(o) or P₁ Explosives</i>	<i>P(eqs) or P₃ Explosives</i>	<i>P(s) or P₅ Explosives</i>
Series 1	Not more than 13 ignitions	Not more than 13 ignitions	No ignition
Series 2	No ignition	No ignition	No ignition
Series 3	No ignition	No ignition	No ignition

3.3.7 Repeat Testing of Permitted Explosives

- a) Directorate General of mines safety may ask manufacturer, if they desires so, to get a permitted explosives checked for incendivity and other tests at any time at manufacturers' cost.
- b) Manufacturer will get a permitted explosive checked for gallery testing and other properties once for every 4 000 tonne of explosive manufactured or once in two years period whichever is earlier. These conditions shall apply for all groups of permitted explosives.
- c) If the manufacturer wishes to market an explosive the composition of which does not fall, in respect of each and every ingredient, within the limits allowed for an explosive already approved, the proposed explosive will be checked for gallery testing and other properties as a new explosive.
- d) If at any time after an explosive has been approved by DGMS, the manufacturer wishes.'
 - 1) to make it in a different factory;
 - 2) to mix it in a different type of machine;
 - 3) to use materials from a different source or prepared in a different way;
 - 4) to use materials of different quality and specifications;
 - 5) to use different cartridge material or wrapping or covering; and
 - 6) to use different clipping material.

The proposed explosive shall be checked for gallery testing and other properties as a new explosive and it shall be allowed for use in underground coal mines, if its results of tests were found satisfactory.

(Page 14, clause 4.1) — Insert the following at the end of clause:

‘Carry out five trials. All the cartridges making one meter long column should detonate in all five consecutive trials.’